

WHAT IS CLAIMED IS:

1. A wireless imaging device, comprising:
an imaging section, arranged to provide a
function of imaging a subject; and
5 a communication section, arranged to provide a
wireless communication function,
wherein said imaging section comprises an optical
lens, an aperture to limit incident light on said
optical lens, an optical sensor to convert the incident
10 light passed through said aperture into an electric
signal, and an antenna integrally provided with said
aperture, to wireless-transmit said electric signal
converted into a radio signal by said communication
section.
- 15 2. The device according to claim 1, wherein said
communication section generates a high frequency signal
based on said electric signal, and supplies the
generated high frequency signal to said antenna.
- 20 3. The device according to claim 1, wherein the
entire surface of said aperture is formed as said
antenna.
- 25 4. The device according to claim 1, wherein said
imaging section is a spherical member, and has said
aperture and said antenna in a cross section passing

through the center of the spherical member, and said optical sensor in a part of a spherical surface of the spherical member.

5 5. An image obtaining apparatus, comprising a plurality of devices described in claim 1, wherein said plurality of devices and wireless communication described in claim 1 construct a network of said plural devices.

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6. The apparatus according to claim 6, further comprising a base section arranged to perform said wireless communication with said plurality of devices, to control transmission of imaging information from
15 said plurality of devices, and to receive said imaging information.

7. A control method of controlling a plurality of devices described in claim 1, comprising the steps of:
20 performing wireless communication to control transmission of imaging information from said plurality of devices; and

receiving said imaging information by said wireless communication.

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8. An image obtaining apparatus, comprising a plurality of imaging devices which provide a wireless communication function and a single imaging function,

wherein said plurality of imaging devices provide,
5 as a whole, one or more high-level imaging functions by co-operative work using said wireless communication function.

9. The apparatus according to claim 8, further
10 comprising a base section arranged to perform said wireless communication with said plurality of imaging devices, to control transmission of imaging information from said plurality of devices, and to receive said imaging information.

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10. The apparatus according to claim 8, wherein said imaging device has a sensing function, and wherein a network of said plurality of imaging devices is constructed utilizing said wireless communication, to
20 provide information to be managed by an external device.

11. The apparatus according to claim 8, wherein said imaging device has a spherical lens and an optical sensor.

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12. The apparatus according to claim 11, wherein a refractive index of said spherical lens is different by imaging device.

5 13. The apparatus according to claim 8, wherein in said imaging device an aperture value of said imaging function is fixed.

14. The apparatus according to claim 13, wherein said
10 aperture value is different by imaging device.

15. The apparatus according to claim 8, wherein said plurality of imaging devices respectively have a single color filter.

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16. The apparatus according to claim 8, wherein said plurality of imaging devices respectively have a polarizing filter.

20 17. The apparatus according to claim 16, wherein said polarizing filter has a liner polarizing or circular polarizing property.